

This listing of claims will replace all prior versions and listings of claims in the application:

1 Claim 1 (canceled).

1 Claim 2 (currently amended): The method of claim ~~1~~ 4  
2 wherein the selected ~~one of at least one~~ set of  
3 configuration information for a data forwarding device is a  
4 most recently committed set of configuration information  
5 for the data forwarding device.

1 Claim 3 (currently amended): The method of claim ~~1~~ 4  
2 wherein the selected ~~one of at least one~~ set of  
3 configuration information for a data forwarding device is  
4 selected by a user.

1 Claim 4 (currently amended): A method comprising:  
2 a) accepting at least a part of a selected set of  
3 configuration information for a data forwarding  
4 device;  
5 b) accepting at least a part of a set of candidate  
6 configuration information for the data forwarding  
7 device; and  
8 c) determining differences, if any, between  
9 - the at least a part of the set of candidate  
10 configuration information for the data forwarding  
11 device, and  
12 - the at least a part of the selected set of  
13 configuration information for the data forwarding  
14 device,

15     ~~The method of claim 1~~ wherein the set of candidate  
16 configuration information for the data forwarding device  
17 includes a plurality of statements,  
18             wherein a first statement of the plurality of  
19 statements of the set of candidate configuration  
20 information for the data forwarding device contains a  
21 second statement of the plurality of statements to define  
22 at least a part of a hierarchical configuration,  
23             wherein the selected ~~one of the at least one~~ set  
24 of configuration information for the data forwarding device  
25 includes a plurality of statements, and  
26             wherein a first statement of the plurality of  
27 statements of the selected ~~one of the at least one~~ set of  
28 configuration information for the data forwarding device  
29 contains a second statement of the plurality of statements  
30 to define at least a part of a hierarchical configuration.

1     Claim 5 (currently amended): The method of claim 4 wherein  
2 the at least the part of the set of candidate configuration  
3 information only includes a defined first statement and any  
4 of the plurality of statements that are descendants of the  
5 defined first statement in the hierarchical configuration,  
6 and

7             wherein the at least the part of the selected ~~one~~  
8 ~~of the at least one~~ set of configuration information  
9 includes a corresponding first statement and any of the  
10 plurality of statements that are descendants of the defined  
11 first statement in the hierarchical configuration.

1     Claim 6 (original): The method of claim 5 wherein the  
2 defined first statement is defined based on a statement of

3 the hierarchical candidate configuration information on  
4 which a user is presently working.

1 Claim 7 (original): The method of claim 5 wherein the  
2 defined first statement is defined by a user input.

1 Claim 8 (original): The method of claim 4 wherein the  
2 hierarchical configuration information includes at least  
3 two categories at a first hierarchical level, and  
4 wherein the at least two categories are selected  
5 from a group of data forwarding device configuration  
6 categories consisting of:

- 7 A) chassis configuration information;
- 8 B) class-of-service configuration information;
- 9 C) firewall configuration information;
- 10 D) forwarding-options configuration information;
- 11 E) groups configuration information;
- 12 F) interfaces configuration information;
- 13 G) policy-options configuration information;
- 14 H) protocols configuration information;
- 15 I) routing-instances configuration information;
- 16 J) routing-options configuration information;
- 17 K) network management protocol configuration  
18 information; and
- 19 L) system configuration information.

1 Claim 9 (original): The method of claim 4 wherein the  
2 hierarchical configuration information includes at least  
3 two categories at a given hierarchical level, the method  
4 further comprising:

- 5 d) associating a predetermined permission value with  
6 a user that is logged in; and

7 e) determining whether the logged in user is  
8 permitted to access one of the at least two categories  
9 of configuration information based on the  
10 predetermined permission.

1 Claim 10 (currently amended): A method comprising:  
2 a) accepting at least a part of a selected set of  
3 configuration information for a data forwarding  
4 device;  
5 b) accepting at least a part of a set of candidate  
6 configuration information for the data forwarding  
7 device; and  
8 c) determining differences, if any, between  
9 - the at least a part of the set of candidate  
10 configuration information for the data forwarding  
11 device, and  
12 - the at least a part of the selected set of  
13 configuration information for the data forwarding  
14 device,

15 ~~The method of claim 1~~ wherein the act of accepting at  
16 least a part of a selected ~~one of at least one~~ set of  
17 configuration information for a data forwarding device is  
18 performed by accessing a storage device of the data  
19 forwarding device,

20 wherein the act of accepting at least a part of a  
21 set of candidate configuration information for the data  
22 forwarding device is performed by accessing a storage  
23 device of the data forwarding device; and

24 wherein the act of determining differences, if  
25 any, between

26           - the at least the part of the set of candidate  
27           configuration information for the data forwarding  
28           device, and  
29           - the at least the part of the selected ~~one of~~  
30           ~~the at least one~~ set of configuration information  
31           for the data forwarding device,  
32   is performed by a component of the data forwarding device.

1   Claim 11 (currently amended): A method comprising:  
2       a) accepting at least a part of a selected set of  
3       configuration information for a data forwarding  
4       device;  
5       b) accepting at least a part of a set of candidate  
6       configuration information for the data forwarding  
7       device; and  
8       c) determining differences, if any, between  
9           - the at least a part of the set of candidate  
10          configuration information for the data forwarding  
11          device, and  
12          - the at least a part of the selected set of  
13          configuration information for the data forwarding  
14          device,  
15   ~~The method of claim 1 wherein the set of candidate~~  
16   configuration information for the data forwarding device  
17   includes a plurality of statements, ~~at least some of which~~  
18   ~~define parameter values,~~  
19          wherein the selected ~~one of the at least one~~ set  
20   of configuration information for the data forwarding device  
21   includes a plurality of statements, ~~at least some of which~~  
22   ~~define parameter values,~~ and  
23          wherein the act of determining differences, if  
24   any, between

25                   - the at least a ~~the~~ part of the set of  
26 candidate configuration information for the  
27 data forwarding device, and  
28                   - the at least a ~~the~~ part of the selected  
29 ~~one of the at least one~~ set of configuration  
30 information for the data forwarding device,  
31 considers changes to a selected one of (a) statements only,  
32 ~~(b) without regard to parameter values only, and (c)~~  
33 ~~statements and parameter values.~~

1 Claim 12 (canceled)

1 Claim 13 (original): In a data forwarding device, a  
2 facility for checking at least a part of a set of candidate  
3 configuration information, the facility comprising:  
4       a) a storage device for storing at least one set of  
5 configuration information for the data forwarding  
6 device;  
7       b) an input facility for  
8           i) accepting at least a part of a selected one  
9 of the at least one set of configuration  
10 information for a data forwarding device, and  
11           ii) accepting at least a part of a set of  
12 candidate configuration information for the data  
13 forwarding device; and  
14       c) a configuration comparison facility for  
15 determining differences, if any, between  
16           - the at least a ~~the~~ part of the set of  
17 candidate configuration information for the data  
18 forwarding device, and

19           - the at least a ~~the~~ part of the selected one of  
20           the at least one set of configuration information  
21           for the data forwarding device.

1   14. (currently amended) A method for determining  
2   differences in at least a part of sets of configuration  
3   information, comprising:

4       a) accepting at least a part of a first set ~~selected~~  
5       ~~one of at least two sets~~ of configuration information  
6       for a data forwarding device, wherein the first set of  
7       configuration information has not been saved on the  
8       data forwarding device as a committed configuration;

9       b) accepting at least a part of a second set ~~selected~~  
10      ~~one of the at least two sets~~ of configuration  
11      information for the data forwarding device, wherein  
12      the second set of configuration information has been  
13      saved on the data forwarding device; and

14      c) determining differences, if any, between  
15          - the first set ~~selected one of the at least two~~  
16          ~~sets~~ of configuration information for a data  
17          forwarding device, and  
18          - the second set ~~selected one of the at least~~  
19          ~~two sets~~ of configuration information for a data  
20          forwarding device.

1   15. (currently amended) The method of claim 14 wherein  
2   the first set ~~selected one of at least two sets~~ of  
3   configuration information for a data forwarding device  
4   includes a plurality of statements,  
5       wherein a first statement of the plurality of  
6   statements of the first set ~~selected one of at least two~~  
7   ~~sets~~ of configuration information for a data forwarding

8 device contains a second statement of the plurality of  
9 statements to define at least a part of a hierarchical  
10 configuration,  
11 wherein the second set ~~selected one of at least~~  
12 ~~two sets~~ of configuration information for a data forwarding  
13 device includes a plurality of statements, and  
14 wherein a first statement of the plurality of  
15 statements of the second set ~~selected one of at least two~~  
16 ~~sets~~ of configuration information for a data forwarding  
17 device contains a second statement of the plurality of  
18 statements to define at least a part of a hierarchical  
19 configuration.

1 16. (currently amended) The method of claim 15 wherein  
2 the at least the part of the first set ~~selected one of at~~  
3 ~~least two sets~~ of configuration information for a data  
4 forwarding device only includes a defined first statement  
5 and any of the plurality of statements that are descendants  
6 of the defined first statement in the hierarchical  
7 configuration, and  
8 wherein the at least the part of the second set  
9 ~~selected one of at least two sets~~ of configuration  
10 information for a data forwarding device includes a  
11 corresponding first statement and any of the plurality of  
12 statements that are descendants of the defined first  
13 statement in the hierarchical configuration.

1 17. The method of claim 16 wherein the defined first  
2 statement is defined by a user input.



1 18. The method of claim 15 wherein the hierarchical  
2 configuration information includes at least two categories  
3 at a first hierarchical level, and

4 wherein the at least two categories are selected  
5 from a group of data forwarding device configuration  
6 categories consisting of:

- 7 A) chassis configuration information;
- 8 B) class-of-service configuration information;
- 9 C) firewall configuration information;
- 10 D) forwarding-options configuration information;
- 11 E) groups configuration information;
- 12 F) interfaces configuration information;
- 13 G) policy-options configuration information;
- 14 H) protocols configuration information;
- 15 I) routing-instances configuration information;
- 16 J) routing-options configuration information;
- 17 K) network management protocol configuration  
18 information; and
- 19 L) system configuration information.

1 19. (currently amended) The method of claim 14 wherein  
2 the act of accepting at least a part of the first set  
3 ~~selected one of at least two sets~~ of configuration  
4 information for the data forwarding device is performed by  
5 accessing a storage device of the data forwarding device,

6 wherein the act of accepting at least a part of  
7 the second set ~~selected one of at least two sets~~ of  
8 configuration information for the data forwarding device is  
9 performed by accessing a storage device of the data  
10 forwarding device, and

11 wherein the act of determining differences, if  
12 any, between

13                   - the first set ~~selected one of at least~~  
14                   ~~two sets~~ of configuration information for  
15                   the data forwarding device, and  
16                   - the second set ~~selected one of at least~~  
17                   ~~two sets~~ of configuration information for  
18                   the data forwarding device,  
19 is performed by a component of the data forwarding device.

1 20. (currently amended) The method of claim 14 wherein  
2 the first set ~~selected one of at least two sets~~ of  
3 configuration information for a data forwarding device  
4 includes a plurality of statements, at least some of which  
5 define parameter values,  
6                   wherein the second set ~~selected one of at least~~  
7 ~~two sets~~ of configuration information for the data  
8 forwarding device includes a plurality of statements, at  
9 least some of which define parameter values, and  
10                   wherein the act of determining differences, if  
11 any, between  
12                   - the first set ~~selected one of at least~~  
13                   ~~two sets~~ of configuration information for  
14                   the data forwarding device, and  
15                   - the second set ~~selected one of at least~~  
16                   ~~two sets~~ of configuration information for  
17                   the data forwarding device,  
18 considers a selected one of (a) statements only, (b)  
19 parameter values only, and (c) statements and parameter  
20 values.

1 Claim 21 (cancelled).

1 Claim 22 (original): In a data forwarding device, a  
2 facility for comparing at least a part of sets of  
3 configuration information, the facility comprising:  
4 a) a storage device for storing at least two sets of  
5 configuration information for the data forwarding  
6 device;  
7 b) an input facility for  
8 i) accepting at least a part of a first selected  
9 one of the at least two sets of configuration  
10 information for the data forwarding device, and  
11 ii) accepting at least a part of a second  
12 selected one of the at least two sets of  
13 configuration information for the data forwarding  
14 device; and  
15 c) a configuration comparison facility for  
16 determining differences, if any, between  
17 - the first selected one of the at least two  
18 sets of configuration information for the data  
19 forwarding device, and  
20 - the second selected one of the at least two  
21 sets of configuration information for the data  
22 forwarding device.

1 Claim 23 (currently amended): A method comprising:  
2 receiving with a data forwarding device, a first set  
3 of configuration information for the data forwarding  
4 device, wherein the first set of configuration information  
5 has not yet been committed on the data forwarding device;  
6 receiving with the data forwarding device, a second  
7 set of configuration information for the data forwarding  
8 device;

9           determining with the data forwarding device,  
10 differences between the first and second sets of  
11 configuration information.

1   Claim 24 (original): The method according to claim 23,  
2   wherein the data forwarding device is a router.

1   Claim 25 (currently amended): A data forwarding device  
2   comprising:  
3       a memory storing a first set of configuration  
4   information and a second set of configuration information  
5   for the data forwarding device; and  
6       a processing module for determining differences  
7   between the first and second sets of configuration  
8   information stored in the memory.

1   Claim 26 (currently amended): A data forwarding device  
2   comprising:  
3       a plurality of data interfaces for connection to  
4   respective data lines;  
5       a mechanism for forwarding data from one data  
6   interface to another data interface;  
7       a user interface for entering configuration  
8   information;  
9       a memory storing a first set of configuration  
10   information and a second set of configuration information;  
11   and  
12       a processing module for determining differences  
13   between the first and second sets of configuration  
14   information stored in the memory.

1 Claim 27 (new): The method of claim 10 wherein the  
2 selected set of configuration information for a data  
3 forwarding device is a most recently committed set of  
4 configuration information for the data forwarding device.

1 Claim 28 (new): The method of claim 10 wherein the  
2 selected set of configuration information for a data  
3 forwarding device is selected by a user.

1 Claim 29 (new): The method of claim 11 wherein the  
2 selected set of configuration information for a data  
3 forwarding device is a most recently committed set of  
4 configuration information for the data forwarding device.

1 Claim 30 (new): The method of claim 11 wherein the  
2 selected set of configuration information for a data  
3 forwarding device is selected by a user.

1 Claim 31 (new): The method of claim 14 wherein a command  
2 to save the first set of configuration information on the  
3 data forwarding device as a committed configuration has not  
4 occurred.